Applicant: Erich Becker

Application No.: 10/550,433

IN THE CLAIMS

Please amend claims 1-8, as follows:

1. (Currently amended) A reciprocating piston machine comprising at least one

working membrane (1) [[and/]] or at least one auxiliary membrane made from an

elastomeric material and having an oscillating drive, engaging the membrane (1) only

in a central area (3), with a deformable membrane area (M) being provided between

the central area (3) of the membrane (1) and a circumferential edge area (5) clamped in

the reciprocating piston machine and deforming during the oscillating pumping

movement, wherein a different geometrical configuration caused by the drive of the

working membrane [[and/]] or the auxiliary membrane (1), caused by the drive, to

<u>between</u> mounting points provided in the central area and at the circumferential edge

area is developed by two merging curves, which define a shape of the membrane.

2. (Currently Amended) The [[A]] reciprocating piston machine according to

claim 1, wherein a membrane cross-section of the working membrane [[and/]] or

auxiliary membrane is sized in the deformable membrane area (M), such that during

pumping movement almost identical tension and/or elastic deformations develop in an

upper surface membrane zone of the deformable membrane area (M).

3. (Currently Amended) The [[A]] reciprocating piston machine according to

claim 1, wherein the working membrane [[and/]] or auxiliary membrane has at least

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two cantilever-shaped annular areas (7, 8) in the deformable membrane area (M),

merging in a cross-sectional reduction (9) of the membrane (1), and the cross-section of

the membrane, starting from the cross-sectional reduction, enlarges in each of the

annular areas (7, 8).

4. (Currently Amended) The [[A]] reciprocating piston machine according to

claim 3, wherein the cross-section of the membrane at least partially enlarges linearly

in the annular areas (7, 8).

5. (Currently Amended) The [[A]] reciprocating piston machine according to

claim 3, wherein the cross-sectional reduction (9) ranges from 0.6 to 0.8 in reference to

a diameter of the deformable membrane area (M).

6. (Currently Amended) The [[A]] reciprocating piston machine according to

claim 1, wherein the reciprocating piston machine comprises a membrane pump.

7. (Currently Amended) The [[A]] reciprocating piston machine according to

claim 1, wherein the working membrane of the membrane pump is a molded

membrane or a flat membrane.

8. (Canceled).

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